

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Withdrawn): Plant protein with repeated WD40 motifs, characterized in that it belongs to the FZR subfamily.

Claim 2 (Withdrawn): Protein according to Claim 1, characterized in that it exhibits at least 45%, and preferably at least 55%, identity with the polypeptide having the sequence SEQ ID No. 2 or at least 60% and preferably at least 70% similarity with the polypeptide having the sequence SEQ ID No. 2.

Claims 3-7 (Canceled).

Claim 8 (Withdrawn, Currently Amended): A method Use of a protein according to either of Claims 1 and 2, or of a nucleic acid sequence according to Claim 1 for regulating the differentiation and the proliferation of plant cells comprising administering the nucleic acid of Claim 1.

Claim 9 (Withdrawn, Currently Amended): The method of Claim 8, wherein Use according to Claim 8, characterized in that the said protein or the said nucleic acid sequence is used to promotes endoploidy in the cells of a plant or of a plant tissue.

Claim 10 (Withdrawn, Currently Amended): Use according to The method of Claim 8, characterized in that the said protein or the wherein said nucleic acid sequence is used to promotes the *in vitro* regeneration of plants from calli in culture.

Claim 11 (Withdrawn, Currently Amended): A method Use of a protein of the FZR subfamily or of a nucleic acid sequence encoding all or part of the said protein, or its complementary sequence, for regulating the differentiation and the proliferation of plant cells, wherein said nucleic acid encodes all or part of Use of a protein of the FZR subfamily or of a nucleic acid sequence encoding all or part of the said protein, or its complementary sequence.

Claim 12 (Currently Amended): An isolated or purified nucleic acid comprising:

(a) SEQ ID NO: 1, or a fragment thereof that encodes a polypeptide that comprises WD-40 repeats and that inhibits mitosis and induces endoreplication ~~regulates plants differentiation or endoreplication~~ , or

(b) a sequence that hybridizes to the full-length complement of the coding portion of SEQ ID NO: 1 under stringent conditions and that encodes a polypeptide that comprises WD-40 repeats and that ~~regulates plant differentiation or endoreplication~~ inhibits mitosis and induces endoreplication,

~~[(c) an antisense sequence that hybridizes to SEQ ID NO: 1 under stringent conditions and that inhibits the expression of a polypeptide [that comprises WD-40 repeats and that regulates plant differentiation or endoreplication;]~~

wherein stringent conditions in (b) comprise washing in ~~2X~~ 0.5X SSC at 65°C.

Claim 13 (Previously Presented): The nucleic acid of Claim 12 that comprises SEQ ID NO: 1 or a fragment thereof.

Claim 14 (Previously Presented): The nucleic acid of Claim 12 that hybridizes to the complement of SEQ ID NO: 1 under stringent conditions.

Claim 15 (Currently Amended): The nucleic acid of Claim 12, ~~[that hybridizes to SEQ ID NO: 1 under stringent conditions]~~ which encodes the polypeptide of SEQ ID NO: 2 or a fragment thereof which comprises WD-40 repeats and that inhibits mitosis and induces endoreplication.

Claim 16 (Currently Amended): The nucleic acid of Claim 12 that encodes a protein that is at least 70% similar to the CCS52Ms protein, wherein similarity is determined using the BLAST program.

Claim 17 (Previously Presented): The nucleic acid of Claim 12 that encodes the CCS52Ms protein.

Claim 18 (Currently Amended): The nucleic acid of Claim 12 that encodes a protein that is at least 70% similar to the CCS52Mt protein, wherein similarity is determined using the BLAST program.

Claim 19 (Previously Presented): The nucleic acid of Claim 12 that encodes the CCS52Mst protein.

Claim 20 (Previously Presented): The nucleic acid of Claim 12 that is isolated from a plant.

Claim 21 (Previously Presented): A vector comprising the nucleic acid of Claim 12.

Claim 22 (Previously Presented): The vector of Claim 21, wherein said nucleic acid is placed under the control of a promoter.

Claim 23 (Previously Presented): The vector of Claim 22, wherein said promoter is an inducible promoter, a constitutive promoter, a tissue-specific promoter or an ubiquitous promoter.

Claim 24 (Previously Presented): The vector of Claim 22, wherein said promoter is an inducible promoter.

Claim 25 (Previously Presented): The vector of Claim 22, wherein said promoter is a tissue specific promoter.

Claim 26 (Previously Presented): A host cell comprising the nucleic acid of Claim 12.

Claim 27 (Previously Presented): A plant cell that comprises the nucleic acid of Claim 12.

Claim 28 (Previously Presented): A transgenic plant comprising the nucleic acid of Claim 12.

Claim 29 (Cancelled).

Claim 30 (New): A nucleic acid that hybridizes to SEQ ID NO: 1 under stringent conditions, wherein stringent conditions comprise washing in 0.5X SSC at 65°C.

Claim 31 (New): The nucleic acid of Claim 30 that inhibits the expression of a polypeptide that comprises WD-40 repeats and that inhibits mitosis and induces endoreplication.

Claim 32 (New): A vector comprising the nucleic acid of Claim 30.

Claim 33 (New): The vector of Claim 32, wherein said nucleic acid is placed under the control of a promoter.

Claim 34 (New): The vector of Claim 32, wherein said promoter is an inducible promoter, a constitutive promoter, a tissue-specific promoter or an ubiquitous promoter.

Claim 35 (New): The vector of Claim 32, wherein said promoter is an inducible promoter.

Claim 36 (New): The vector of Claim 32, wherein said promoter is a tissue specific promoter.

Claim 37 (New): A host cell comprising the nucleic acid of Claim 32.

Claim 38 (New): A plant cell that comprises the nucleic acid of Claim 32.

Claim 39 (New): A transgenic plant comprising the nucleic acid of Claim 32.

Claim 40 (New): The nucleic acid of Claim 12, wherein said sequence encodes a protein comprising amino acid residues 51-55 and 57 of SEQ ID NO: 2.

Claim 41 (New): The nucleic acid of Claim 12, wherein said sequence encodes a protein comprising amino acid residues 81, 84, 85, 90 and 91 of SEQ ID NO: 2.